

CONNECTICUT INDUSTRY

OCTOBER NUMBER



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Audits, Examinations and Special Investigations for Credit, Financing and General Purposes.

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CONNECTICUT INDUSTRY

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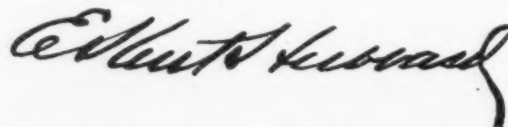


THE INSTITUTE OF POLITICS

One of our most important questions today and one which really relates far more closely to industry than the average manufacturer seems to believe, is the question of our foreign affairs. The American people as a whole refuse to become concerned to any marked degree over such matters unless they are really vital and threatening to industry; the general attitude is one of aloofness. The country's policy from its birth has been in that direction and although there has been a marked change from the absolute unconcern of earlier days, a change which was initiated in 1898, throughout the rank and file there is still the intent to avoid consideration of outside issues which are not in the open associated with anything American. This indifference is to be regretted. It is not to be forgotten, true, that when the hour of real need has come, our country has not waited to ask "Am I my brother's keeper?" But that does not leave us with entire freedom to disassociate ourselves from all contact and to free ourselves from exposure to information in the intervals between crises.

The last session of the Institute of Politics at Williamstown attracted widespread attention. For one thing the discussions ran parallel with unusual events, but the debates, the large proportion of which related to foreign affairs, were most important and many were on subjects which had a direct bearing on economic problems close to the interests if not to the heart of the manufacturer of today.

The Institute of Politics was designed to bring to the states men of affairs from other lands who could present with force, based on first-hand knowledge, the point of view of other nations. Contemporary politics and studies of the effect upon our own economic conditions of conditions abroad are matters to which industrial leaders everywhere must, from necessity, accord increasing consideration. A medium such as the Institute of Politics offers a tremendous opportunity for leaders in the industrial field to help in the development, along proper lines, of a national consciousness of the coming business needs of our nation. It does not become us to leave this to someone else to do or to permit an opportunity to go unheeded. It is the duty of manufacturers to participate with educators and students of international political affairs in these matters, that business per se may not awaken to find some day that public interest for national participation in such matters has been aroused without a collateral understanding of the purposes of industry and business, and its needs.



To-morrow's Profits Are in To-day's Wastes

By RAY M. HUDSON, Chief

Division of Simplified Practice, U. S. Department of Commerce

PERIODIC booms and slumps of the so-called "business cycle" account for some of the greatest wastes hitherto encountered in our whole economic system. The waste of the boom, through speculation, over-production, ill-advised expansions, extravagance, relaxed effort, and decreased efficiency, together with the boom's inevitable collapse, is followed by the still greater wastes of unemployment during the depression.

The causes and remedies for the business cycle have long been under discussion. In its report on "Business Cycles and Unemployment" the committee appointed by Secretary Hoover to study this subject, made numerous constructive recommendations, the application of which has already demonstrated their value in stabilizing business. The investigation shows that many firms which pursued the policies recommended, came through the last period of business disaster with success and stability; and that ignorance of determinable facts accounts for the disasters to many others.

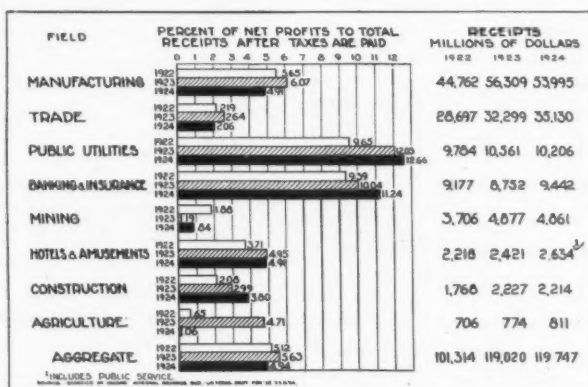
Origin of the Conservation Program

THE Business Cycle Committee's report, issued in March, 1923, is complimentary to that of the Committee on Waste in Industry.

In February, 1921, a committee of seventeen engineers headed by Mr. Hoover, met in Syracuse and mapped out a survey of waste in American industry. When the committee brought out in June, 1921, the report of its findings, it truly "fired a shot heard round the world," for today interest in waste-elimination is world-wide. The report has been translated into several foreign languages and has been extensively studied by thousands of business men and industrial leaders not only in the United

States, but also in Canada, England, France, Germany, Norway, Sweden, Russia, Italy, Czechoslovakia, India, Japan and Australia. In my office in Washington, I have talked with one or more business men who have come to

America from the countries I have named to find out more about American business methods, and there is scarcely a day goes by but what inquiry comes by mail from some part of the world. Citizens of the United States may well take pride in the fact that their country is the birthplace of the new industrial era in which



we now live, an era which, in its economic significance and its bearing on the prosperity of our great country and its people is of even greater consequence than the so-called "Industrial Revolution" which began in England over a century ago with the invention of the steam engine, the locomotive, and the spinning jenny.

What the Hoover Committee Found

THE Hoover Committee studied six major industries and found varying degrees of waste as follows:

Metal Trades	29%
Boot and shoe manufacturing	41
Textile manufacturing	49
Building	53
Printing	58
Men's clothing	64
Average	49%

Roughly speaking, practically one-half the material, labor, energy and human effort expended in these industries is lost, or wasted, i. e., spent without tangible return. If the waste factor of these six industries is typical of all our industries, with their annual output

of more than \$60,000,000,000 of manufactured goods, we can readily see the tremendous cost to the average American citizen, for obviously the loss is borne by him in the long run. It is recognized that all of this waste is not avoidable; some of it can never be overcome, but experience in various industries has proven that the total can be reduced.

The Four Major Causes of Industrial Waste

THE major causes for waste in industry are:

- (1) Low production due to faulty management of materials, machinery, equipment and men.
- (2) Interrupted production caused by idle men, idle materials, idle plants and idle equipment.
- (3) Restricted production intentionally caused by owners, management or labor.
- (4) Lost production caused by ill health, physical defects, and industrial accidents.

In assaying the relative responsibility for these wastes, the Hoover Committee found that over 50% of the responsibility can be placed at the door of management, less than 25% at the door of labor, while the amount chargeable to outside contacts, or conditions which neither management nor men can control, was least of all. Management has the greatest opportunity, hence responsibility, for eliminating waste in industry. The opportunity and responsibility of labor is no less real though smaller in degree.

Recommendations and Remedies

AS a result of its findings, the Hoover Committee was enabled to make several constructive recommendations as to ways and means for reducing waste in the production and distribution of essential commodities.

These recommendations include: (1) the improvement of organization and executive control; (2) a better balancing of productive capacity with actual demand; (3) the wider use of industrial statistics; (4) the wider adoption of uniform cost accounting methods; (5) the simplification and standardization of products; (6) the prevention of accidents; (7) the improvement of industrial relations, and so on.

Where the Public Comes In

IT is recognized that the public has an obligation to cooperate with management and labor in their joint efforts to curtail waste. The style problem lies largely with the public, for with more regard for usefulness and econ-

omy, and less insistence on frequent and extreme variety, manufacturers could operate more economically and merchants would have fewer stocks go dead on their hands. A more sensible or uniform distribution of demand throughout the year is likewise up to the public.

Sizes and Styles Reduced

THE Division of which I am in charge is concerned chiefly with Simplified Practice, defined as the reduction of variety in sizes, dimensions, and immaterial differences in everyday commodities.

The values in such reduction can readily be demonstrated by actual example. In 1914, the manufacturers of farm machinery had 240 varieties of drills and seeders, today they make 38; they used to make 209 varieties of the ordinary plow, today they make 30. Where ten years ago there were 2,135 different implements divided among 12 types or classes of farm machinery, today there are but 227 — 75% have been eliminated as unnecessary.

This has simplified design, production, selling, and even the accounting practices of these companies, and farmers have benefited through the better service of supply, the improved quality of the machines, and in the higher value for their money.

Up to one year ago, there were 45 different sizes and styles of electric lamps, today there are 5. The 9 sizes of the 50-watt lamp have been replaced by *one*.

Engineers in the lighting industry point out that simplification as applied in that industry for several years past has helped greatly to reduce the cost of lighting. In fact, the cost of illumination is about the only item in our daily cost of living that shows any marked decrease from pre-war prices.

Automobile manufacturers have applied simplification in the design and fabrication of their products with consequent decrease in the cost of production, improvement of service, and general benefit to all concerned.

Several of the larger manufacturing companies have applied simplification to their purchases, with consequent reduction of inventory, and of idle investment.

The operators of a certain chain of hotels simplified their requirements and reduced costs of items simplified 20% below former cost, released \$350,000 from former inventories and saved \$100,000 a year.

Simplification can be applied in most any line of business. A large garage company simplified its equipment to one make of motor trucks and one make of passenger cars, and by

so doing cut its spare parts stock from 20,000 to 5,000 items, and correspondingly decreased its stockroom space, personnel, and investment. It bought fewer items but in larger quantities, and thus obtained lower prices when purchasing.

Several of our railroads have likewise employed simplification to advantage in reducing stores stocks. One railroad cut its inventory from \$38,000,000 to \$20,000,000, thus releasing \$18,000,000 of otherwise idle capital for more productive purposes.

City, county, and state purchasing officers have also found simplification useful in keeping down expenses and reducing administration costs, and thus have made the taxpayers' dollar go farther.

Simplification is merely concentration on sizes, etc., in most common demand. Many surveys have shown that 80% of the business usually comes from 20% of the varieties offered. The other 80% of the variety that yields only one-fifth of the gross business is often a heavy drag on the industry, absorbing capital unnecessarily and running up overhead and costs in general to a point where the public refuses to buy.

To date, more than three hundred groups have requested the Division's cooperation in eliminating excessive variety in their products. Over 60 simplifications have been completed and more than 100 others are under

way, to mature as have these others in due time. A few typical examples of what has been

done, showing the results of Simplified Practice as it has been applied to various lines, will be found at the conclusion of this article.

The "Secret of High Wages" in America

THE results of this campaign to eliminate waste, together with the application of labor-saving machinery, the incentive of higher wages, and the better understanding of business economics has been to increase our national efficiency more than 50 per cent above pre-war levels as indicated by the increase in output per man hour in many of our principal industries.

This is the "secret of high wages" in America, as stated in a recent book of that title written by two British industrial experts and engineers who made a thorough study of our industries last year. While wages here have risen relatively (by U.S. Dept. of Labor Index numbers) from 199 to 238 in the past six years, wholesale prices have dropped from 226 to 150 (using 1913 as 100), whereas in Great Britain wages have dropped from 256 to 175 and prices from 283 to 166. Need we wonder then at the general dissatisfaction of labor in England in contrast to the relative freedom from industrial strife in our own

We take pleasure in printing the following letter received from Mr. Hudson:

"What will my net profit be at the end of the year?" That is a question now before a good many manufacturers, who are confronted with steadily declining price levels and a constant demand from buyers for better terms.

"Keen competition is causing manufacturers to make price concessions in order to get the business, with the result that only those producers who can consistently cut down their costs of production and selling *per unit of product*, as fast as the prices of their products fall, are sure of any profit at the end of the year.

"Even then, granting that price reduction usually means more sales and greater total volume, there is danger that effort to get greater volume will add certain extra costs that in turn will neutralize the savings made in production. Furthermore, commercial failures are increasing in number. There were more of them in the first quarter of 1927 than in the same period of any year except 1922 and 1915 which were both periods of serious business depression. That these failures are chiefly among the smaller firms is proven by the relatively low average assets of the firms that have failed.

"It would seem, therefore, that the State Manufacturers' Association now have an unusual opportunity to point out to their smaller members, and possibly to some of their larger ones, that simplification is not only profit but also failure insurance. For example, if a manufacturer analyzes his sales and finds 75 to 80% of his business is done in 20 to 25% of the lines he is offering the public, he can well afford to cut out that 75-80% of variety that brings in only 20 to 25% of his total business. This concentration on his staple lines means economy in both manufacturing and selling. If he likewise overhauls his purchases and finds himself buying too many different kinds of supplies, etc., and paying high prices for them (because of the small quantity ordered of each) he can save money by purchasing relatively larger quantities of fewer items because he will get better discounts.

"Thus, by simplifying the number of things he sells and specializing on those lines which assure him fair volume and fair profit per unit of sale, while at the same time simplifying the number of things he buys and 'standardizing' on those lines of greatest availability and reasonable price, he is making profits at both ends of his business. The combination will keep him out of the 'red ink' at the end of the year, and the chances are his 1927 net profit will be much larger than otherwise.

"Are you sure that your smaller members fully understand that simplification is especially practicable and workable by the individual company under such conditions as prevail today?"

country for the past four years.

Since this war on waste began, the cost of

living as reflected by the purchasing power of the dollar has become stabilized. The purchasing power of the dollar has not varied over a nickel up or down in the past five years.

The consequent margin or surplus between wages and living costs explains the vastly increased purchasing power of the public during that period.

Decline in Profit Margins

HOWEVER, competition between various industries is very keen and profit margins have been steadily declining. According to United States income tax returns, 212,535 firms doing a gross business of \$80,331,000,000 in 1922 had as net profits after all expenses, taxes, etc., were paid \$6,963,000,000 or 8 $\frac{1}{10}$ %. In 1923, 233,339 firms doing \$97,457,000,000 gross had a net profit of \$8,321,000,000 or 8 $\frac{1}{10}$ %, and in 1924, 236,389 firms doing practically the same volume of business, i. e., \$97,158,000,000 made a net profit of \$7,586,000,000, or 7 $\frac{1}{10}$ %. It remains to be seen whether profits in 1925 and 1926 have fallen off at this same rate. It is significant that these 230,000 companies represent only 56% of the corporations reporting. The other 44% have consistently averaged a net loss of 10% on \$21,000,000,000 business done in each of the three (3) years cited. This one fact alone indicates the opportunity for more intensive study of business conditions and methods, and the elimination of waste in the operations of the 170,000 firms who have not made any profits in the three years referred to.

Closer analysis of the situation shows profits

declining in manufacturing, general trade, mining, agriculture, and also in the hotel and amusement business. Construction, public utilities, banking and insurance made consistent

gains in 1923 over 1922, and in 1924 over 1923. The net profits in these eight major fields of American business enterprise on \$119,747,000,000 worth of business done in 1924 was only 4 $\frac{1}{100}$ %.

Analyzing the manufacturing industries we find that profits were less in 1924 than in 1923 in the following lines—

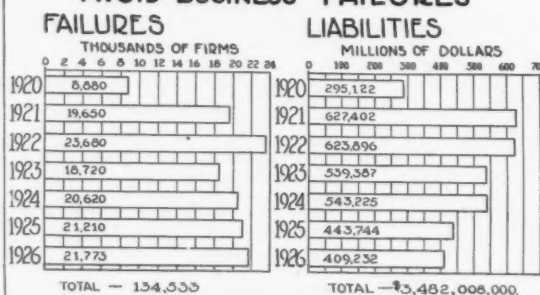
metal products, food products, textiles, lumber, stone, clay and glass, paper and pulp. Profits in 1924 were equal to or greater than in 1923 for only the chemical, printing, leather, and rubber industries. The average net profits in 11 major branches of manufacturing in 1924 on \$53,995,000,000 of business done were only 4 $\frac{1}{100}$ %.

PROFITS AND LOSSES IN AMERICAN INDUSTRY

	1922		1923		1924	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
TOTAL CORPORATIONS REPORTING	382,833	100	398,993	100	417,421	100
NUMBER MAKING PROFIT	212,535	55.5	233,339	58.5	236,389	56.6
GROSS INCOME (MILLIONS) A	80,331	—	97,457	—	97,158	—
NET INCOME (MILLIONS) B	6,963	—	8,321	—	7,586	—
PROFIT MARGIN B÷A×C	—	8.6	—	8.5	—	7.8
NUMBER SHOWING LOSS	170,348	44.5	165,594	41.5	181,032	43.4
GROSS INCOME (MILLIONS) D	20,588	—	21,106	—	22,070	—
DEFICIT (MILLIONS) E	2,193	—	2,013	—	2,223	—
AVERAGE LOSS E÷D×F	—	10.6	—	9.5	—	10.0

SOURCE: "STATISTICS OF INCOME" INTERNAL REVENUE BUREAU U.S. TREAS. DEPT.

SIMPLIFIED PRACTICE HELPS AVOID BUSINESS FAILURES



QUICK TURNING STOCKS ARE ASSETS

Greater Efficiency and Conservation Essential

THERE can be no question that profits of the future must come out of today's wastes. The manufacturer has to pay high wages—labor will resist all efforts to cut its present scale. Material prices are higher, selling and other expenses of doing business are higher. On the other

side, the consumers are stiffening their resistance to any rise in their own cost of living and by refusing to buy at higher prices and turning their business to firms offering quality goods at lower prices—competition is still further intensified. To meet these conditions, manufacturers must make greater effort to re-

duce waste of every form in their plants, their processes, and their products.

A survey among 150 of our leading corporations brought in the following recommendations as to lines along which manufacturers must work to meet the conditions just described.

1. Give more attention to forecasting and budgeting. Adjust production policies to business conditions. Don't over-produce.

2. Improve quality as a means of gaining a greater sales advantage.

3. Continue efforts to reduce manufacturing costs.

4. Coordinate sales and production programs.

5. Simplify lines; eliminate slow-selling sizes, styles, etc.

6. Control inventories closely. Hold inventories of raw materials, work in process, and finished products to a minimum.

7. Improve control of costs. Use modern cost accounting methods.

In all these ways it is possible to eliminate waste, cut down costs, and produce better goods at current or lower prices. As more firms apply these fundamentals in the conduct of their enterprises, business is bound to become more stable. National prosperity, like family prosperity, is a function of production and thrift, and production is a function of labor or effort intelligently directed and efficiently performed.

Ralph Waldo Emerson once said: "An infinite number of shrewd men, in infinite years, have arrived at *certain best and shortest ways of doing*, and this accumulated skill in arts, cultures, harvestings, curings, manufactures, navigations, exchanges, constitutes the worth of our world today."

Herbert Hoover says: "The primary duty of organized society is to enlarge the lives and increase the standards of living of all the people. The whole basis of an increased standard of living, of better human relations, of national progress—indeed, of the advancement of civilization—is the continuous improvement in production and distribution."

To sum up then, to the manufacturer, Simplified Practice means

(1) More economical manufacture through less idle equipment, better scheduling of work, accurate cost accounting, long runs on large units, simplified packing, simplified material inventory, reduced cost per unit;

(2) More efficient labor through less seasonal employment fluctuations, in-

creased individual output, greater skill of workmen, ease of training employees, simpler and better inspection, smaller labor turnover, greater earning power;

(3) Less capital tied up in raw materials, special mechanical equipment, semi-finished stock, finished stock, storage space, repair parts.

To the distributor, Simplified Practice means

(1) Increased turnover due to concentration of stock, staple lines, easy to buy, quick to sell, no slow-moving numbers, more effective sales force, more concentrated sales effort;

(2) Less overhead and better service through lower handling charges, less stock depreciation, smaller clerical forces, less obsolescence, quick and reliable delivery, fewer misunderstandings and errors;

(3) Decreased capital requirements, fewer complete lines to carry, for maintenance stocks, for packing materials, for storage space, for interest and other charges, less operating margin required.

To the consumer, Simplified Practice means Better value for money, better quality, prompt deliveries, quick replacement service, lower maintenance costs, simplified specifications and protection against unscrupulous traders.

Savings Effected in a Few Typical Lines

Mill Supplies, Shop Equipment, etc.

Commodity	Formerly	Now	Reduction
Files and rasps	1,351	496	65 %
Forged tools	665	351	47 %
Plow bolts	1,500	840	44 %
Sheet steel	1,819	263	85 %
Milling cutters			35 %
Die heads, self-opening ..			75 %
Grinding wheels	715,200	255,800	64 %
Average reduction			59 %

Construction Materials

Paving bricks	66	4	94 %
Asphalt	102	10	90 %
Steel reinforcing bars ..	40	11	72½ %
Metal lath	125	24	81 %
Woven wire fence	552	69	87 %
Asbestos mill board ...	10	5	50 %
Eaves trough & conductor pipe	21	16	24 %
Concrete building units	115	24	80 %
Sand lime brick	14	3	78½ %
Roofing slate	98	48	51 %
Average reduction			71 %

(Continued on page 17)



Photo by Alden

AERIAL VIEW OF THE HARTFORD SPECIAL MACHINERY COMPANY PLANT AT HARTFORD

The Hartford Special Machinery Company, whose plant is shown in the immediate foreground, has recently completed a 20 x 30 foot addition to its plant. The new portion is being equipped with the most modern gear-cutting equipment obtainable and the company will furnish cut gears of all types to order. This is the ninth of a series of such views, appearing in Connecticut Industry

Industrial News Around the State

PRESENTS WASP MOTOR TO 43D DIVISION

The Pratt & Whitney Aircraft Company of Hartford has given one of its Wasp motors to the 43d Division Air Service to be installed in a new Curtis-Falcon plane. It was the desire of the Pratt & Whitney Aircraft Company that the division located at Hartford be equipped with a Hartford engine and through its generosity the Hartford equipment will be second to none.

CHAFFEE COMPANY CHANGES HANDS

After 63 years spent as a successful manufacturer, Col. J. D. Chaffee, president of the Chaffee Manufacturing Company of Willimantic, has retired from active manufacturing and sold his concern to Charles H. Weare of Troy, New York, who will continue the business.

Col. Chaffee is one of the pioneers in the silk

industry in Connecticut and has operated the present silk-braid and fish-line business for 45 years. He served in the State Legislature for two terms and was a member of Governor Lounsbury's staff.

NEW SOAP COMPANY IN EAST HARTFORD

The Major Henry Products Company of East Hartford has been incorporated and will manufacture and sell hand soaps, cleansing compounds and polishing preparations. The incorporators are Major W. Henry of East Hartford, Wm. A. Butler of Hartford and David R. Woodhouse of Wethersfield.

STERLING CLOCK MOVES ENTIRE BUSINESS TO CONNECTICUT

The entire business of the Sterling Clock Company, makers of electric automobile clocks, has been transferred from New York to the

Meriden plant and the New York end entirely discontinued.

The company opened a branch in Meriden in the former Parker Clock factory several months ago and now employs about sixty hands. L. J. Stearns has come from New York in the capacity of general manager, W. T. Maloney, of New Jersey, is superintendent and B. M. Gilman, formerly assistant treasurer of the Hartford Battery Company of Milldale is purchasing agent.

BUSINESS-GETTING METHODS SELL CONNECTICUT CARPETS

A new theatre, the Playhouse, was to be opened in Washington, D. C., on September 1. On August 2 the head of the contract department of a Philadelphia store arrived in Wilmington and found that the contract for carpeting was to be awarded the next morning. Moreover, there was another salesman already on hand fully equipped to corral the business for another concern.

The Philadelphia man got busy. At 4:30 P. M. he called the New York sales offices of the Bigelow-Hartford Carpet Company on the telephone. He must have a complete line of samples by early the next morning. The New York office, not at all dismayed, but mindful of its reputation for dealer cooperation, bought a passenger ticket on which a lonely trunk packed with samples left New York for Wilmington an hour and a half later. At the same time a special delivery letter containing the key to the trunk and an explanatory letter, was dispatched to the manager of the Wilmington hotel. Before midnight the trunk reached its destination and the retailer found his samples waiting for him when he again reached Wilmington from Philadelphia the next morning.

At 10:30 A. M. the New York office had another call. The theatre would buy 1,100 yards of Bigelow carpeting if this could be delivered by the end of August. The New York office got its Thompsonville, Connecticut, mills on the wire and at 11:30, one hour later, detailed instructions had been prepared, work was begun on the order, and the dealer was notified that he could close the deal, for the last delivery would be made August 29.

PRODUCES RAW SILK IN DANBURY

Danbury has been experiencing a revival of Connecticut's early silkworm raising days. Nicholas Soloman, recently returned from his home in Syria, brought back with him about 20,000 silkworm eggs which he has been successful in hatching. Although the quality of

the silk is still to be determined, the cocoons are much larger than those produced from the same worms in Syria. The second hatching will take place next spring.

GILBERT CELEBRATES 120TH ANNIVERSARY

The Wm. L. Gilbert Clock Company of Winsted, has held special sales conferences this year in celebration of the founding of its business one hundred and twenty years ago. So far as is known the Gilbert Company is the oldest industrial organization in the United States still operating on its original manufacturing site. In honor of the event a special new line of color-clocks has been placed on the market.

In connection with the anniversary, announcement has been made of several changes and promotions among the plant personnel. Othneil G. Williams, son of general manager C. E. Williams, has been appointed superintendent of production, Norman L. Stevens has been made general sales manager for New York and Stuart A. Atkins has been made general advertising agent.

GOODYEAR MAKES MIDDLETOWN ITS DISTRIBUTING CENTER

Effective August 15, the Goodyear Rubber Company transferred its New York offices to Middletown, Connecticut, and made that city its distributing center for New England. The company, which is operating under a new management, as announced in a recent issue of *Connecticut Industry*, is on a full-time schedule.

CHENEY BROTHERS HOLD EXHIBIT

Cheney Brothers of South Manchester held a private and advance showing of new cravats during recent salesmen conferences. The salesmen inspected the various departments seeing all types of goods manufactured and then were shown the cravat display arranged at Cheney Hall. The principal cravat designs were arranged in displays which showed the idea from which the design originated. The designs were seven in number, including Persian, Mosaic, Chinese, Indian, Undersea, Banker and Sports. The Undersea exhibit was an aquatic one showing coral, gold fish and other forms of water-life. Others were developed with equal care, an elaborate Indian display demonstrating the origin of the Indian cravat designs.

PORTEOUS BUYS WILCOX LACE COMPANY

At a recent sale the Wilcox Lace Company of Middletown was purchased by James H. Porteous of that city who is expected to dispose

of the property to manufacturing interests. A reorganization has been effected and the concern reopened.

HUNTER & HAVENS BUY PURINTON & SMITH

The Hunter & Havens Company of Bridgeport has purchased the machinery and mill supply business of Purinton and Smith of Hartford. Lyman A. Smith, former owner, will remain in charge of the Hartford office.

FARREL AND BIRMINGHAM FOUNDRY IN MERGER

Stockholders of the Farrel Foundry and Machine Company of Ansonia and the Birmingham Iron Foundry of Derby met on September 20 to merge the two companies. With this completed, two of Connecticut's most prominent concerns will be united. Their combined employees will total over 1600 and the combined weekly payroll will be approximately \$60,000.

Both companies make heavy machinery such as is required by the brass, copper, rubber, sugar or paper industries. The Birmingham Iron Foundry was organized in 1836 and the Farrel Foundry and Machine Company in 1848.

The new company will be incorporated under the Connecticut laws and will be known as the Farrel Birmingham Company, Inc. Officers of both of the original companies will be active in the management of the new concern.

NEW PRESIDENT FOR REMINGTON ARMS

J. B. Smalley, president of the Remington Arms Company of Bridgeport has resigned because of ill health and Saunders Norvell has been chosen to succeed him.

TUNXIS WORSTED REOPENS

The Tunxis Worsted Company of Poquonock which has been closed for nearly a year is to be reopened, according to announcements. The company has recently been taken over by new management and is to be operated under the direction of J. C. Priestly of Lynn, Massachusetts.

IMPORTANT ELECTRICAL MERGER

Stockholders have approved the plan to merge the Arrow Electric Company of Hartford and the Hart and Hegeman Manufacturing Company. The Hart and Hegeman Company has two plants in Hartford, one in Trenton and one in Philadelphia. The Arrow Electric has two factories in Hartford and is building a third. It also has a plant at Washington, D. C.

NEW SMOKE STAND LIGHTER

The Christmas trade will find on the market a new product in the field of smokers' accessories which has been developed by a Connecticut company, the Steele & Johnson Manufacturing Company of Waterbury. It is the application of the automatic cigarette lighter principle to a smoke stand set. The lighter is larger than the usual pocket device and comes in various units of ash trays and cigarette cases and is supplied in a number of finishes.

SCOVILL WINS RADIO PATENT SUIT

U. S. District Judge Edwin S. Thomas has granted a favorable decision in the plea of the Scovill Manufacturing Company of Waterbury for an injunction against Joseph Satler of Hartford operating as the Eagle Radio Company.

The suit was over a straight-line frequency variable condenser patented by the Scovill

(Continued on page 21)

Middlesex County Association

Another link in the almost complete chain of local and county industrial associations has been forged with the recent formation of the Middlesex County Manufacturers Association. Preliminary steps toward that end were taken last spring when a number of executives from various parts of the county came together to discuss the advisability of forming a county manufacturers association, but definite action was deferred pending aid in the organization which the manufacturers present voted to seek from the State Association.

The State Association, on the invitation thus extended, entered on the necessary field work, and a representative group of manufacturers from all parts of the county met in Middletown on September 20. Addresses were made by President Hubbard of the State Association; Senator R. L. Keeney, Somersville Manufacturing Company, president of the Tolland County Manufacturers Association; Senator W. R. Pierson, of A. N. Pierson, Inc.; and P. L. Gerety, secretary of the Industrial Association of the Lower Naugatuck Valley and chairman of the Connecticut Industrial Council.

A permanent organization was effected at this meeting and the following officers and directors were elected: president, E. S. Davis, Rogers and Hubbard Manufacturing Company, Middletown; vice-president, R. E. Benner, Remington-Noiseless Corporation, Middletown; secretary-treasurer, A. A. Packard, Connecticut Power Company, Middletown.

Changing Red Figures to Black

By C. R. BURT, Vice-President and General Manager
of the Pratt and Whitney Company

New England industries have been subjected, in some cases unfairly, but in many cases very rightly, to criticism for their failure to install new and up-to-date machinery and methods to meet modern competitive conditions. The following article, which consists of extracts from an address by Mr. Burt at the New Haven Machine Tool Exhibit in September, is printed here as an example of what can be done when a concern sets out to change red figures to black.

AFTER the war not only the Pratt & Whitney Company, but also nearly all other machine tool builders, were faced with large inventories of finished machinery and tools. Then came the period of readjustment, which lasted for about five years, and during which time the demand for new equipment was very limited.

During the early part of 1925 we began to realize that we had entirely too much factory and not enough work, and that future possibilities did not warrant our operating the additional property which was added during the war. Therefore in the summer of that year several conferences on this subject were held with the directors, and it was decided to rearrange the plant from top to bottom and put in new machinery to meet existing competitive conditions. As a result of this decision orders were issued to reduce the floor space, to discard old and useless machinery, to install new and modern machinery, and to substitute up-to-date methods where necessary.

The rearrangement of the Pratt and Whitney plant was a result of applying three important principles, which in my opinion are necessary for the successful operation of any business today, namely —

1. Common Sense
2. Experience
3. More Pep

Common Sense

THIS term is often misused, but when properly applied it brings results. It is obvious that any concern expecting to remain in business today and make money must keep pace with the times. It must employ modern methods and be up to date in its equipment and in the product it produces.

Analyzing the Business

ANALYZING our business in every detail and looking the facts squarely in the face, we found the cost of manufacturing many of the parts used in our machines was excessively high. This was due to three reasons:

1. The use of antiquated machinery and methods.

2. Unnecessary

handling charges from widely separated departments.

3. The carrying charges of idle floor space and idle equipment.

This situation emphasized very clearly the fact that in order to manufacture our product at a lower cost it would be necessary to discard much of our old machinery and slow produc-



C. R. BURT

tion methods, and in their place to install up-to-date equipment, together with modern manufacturing methods, which would enable us to show a profit instead of a loss. This analysis showed us the need of a complete rearrangement of our manufacturing departments.

The first move in the rearrangement of our plant was to vacate four manufacturing buildings and we were successful in renting this part of the plant for a term of years at an advantageous figure. In releasing this part of the property the total floor space was reduced from 975,000 sq. ft. to 775,000 sq. ft., or by approximately 20%.

The next step in the program was the consolidation and moving of 19 departments: toolroom, gage, screw machine, deep hole drilling, lathe turning (cast iron), lathe turning (steel), thread milling, two assembly departments, small precision tool department, cut off department, shipping, small tool office, employment, maintenance, painting, production, cost and accounting, and engineering.

It was found possible to consolidate several departments on one floor under one head, which not only eliminated the cost of handling, but also reduced materially the cost of supervision. The machines were placed so that the work would come in proper sequence of operation as far as possible.

The total time required in relocating the departments consumed about four months. Floor plans were laid out very carefully showing the location of each machine. The departments being relocated were usually closed down on Thursday night, the moving being done on Friday, Saturday and Sunday, in order that the machines which were moved would be ready to operate the following Monday with as little interference to production as possible.

The entire factory interior was painted white with a gray dado about 4' high. New benches were put in to replace old ones wherever necessary and modern lighting systems were installed in several buildings which were equipped previously with insufficient lighting arrangements. The floors were thoroughly cleaned and scraped, and all scrap material removed. In many cases the equipment was given a coat of paint to improve the general appearance. New and faster elevators were installed to help in cutting down the cost of handling our

product from floor to floor and bridges were built connecting various buildings, making departments more accessible and greatly reducing the time of going from one building to another. This is a very important item as often the greatest loss involved in manufacturing small parts is the time lost in handling those parts and in supervisors going from one department to another.

Roger Babson Says —

"THE volume of business to-day is good. In the industrial sections, the best outlook for 1928 is in New York, Pennsylvania, Ohio and Connecticut."

A forge plant had been located in a substantial building in the center of the property and was then equipped with steam hammers and drop hammers which had been in use from 10 to 30 years. Upon investigation we found that this was a very unprofitable department to maintain

and we decided to close it down and dispose of the equipment. This resulted in a substantial saving in upkeep and maintenance, depreciation, etc., and perhaps the most important fact was that we found it possible to buy our forgings from an outside source at a saving over our former costs.

The total amount of old machinery disposed of in 1925-26 (book value) was \$556,000, the total value of new equipment installed was \$475,000. The total expense of moving, painting, cleaning, etc., was \$249,000.

There is very little that can be said regarding the machinery disposed of. A large majority of it was turned over to our foundry as scrap iron. In a few cases machine tools had some value and were disposed of to second-hand dealers. The figures given represent our book values after depreciation and not the original values. The greater part of this discarded equipment had averaged at least 20 years of service.

This old equipment has been replaced with new machinery of the latest design. In the majority of cases motor driven machines were purchased, consisting of automatic milling machines, heavy motor driven millers, automatic screw machines, hobbing machines, gear cutters, turret lathes, plain and internal grinders, surface grinders, shapers, and other miscellaneous types of equipment.

In the cutting off department a number of machines made by ourselves about 35 years ago were deposited in the foundry yard for scrap purposes, and a heavy duty cutting-off machine, together with two smaller machines were

substituted in their place. The floor space was cut in half, several employees eliminated and a material reduction in the cost of cutting-off the steel for our various departments resulted.

The foundry also has come in for its share of changes and it was found necessary to install several new molding machines, jolting machines, etc., also new core ovens, new skylights for better light, etc. As a result of the installation of this new equipment and better handling facilities the cost of iron castings was reduced 2 to 3 cents per pound. The foundry at the present time is operating very efficiently and producing a high grade of casting with a very low percentage of scrap.

Experience

LET us consider for the moment that the factory has been rearranged, new machinery installed, the factory ready for operation and referring back to the important factors which have entered into this plan, we will elaborate somewhat on the item of experience.

In entering orders in the factory they are first turned over to the production department. This department has been completely reorganized both in personnel and in methods, and included in its work are the estimating, planning, time study and the setting of piece-work rates. A new policy in estimating has been established which has proved of material assistance in reducing our factory costs. A number of high grade experts have been employed, who have had years of experience in the factory and who are familiar with the latest and most modern types of machines. It is their duty to make estimates, cooperating with the foremen in whose department the work is to be done, and set up a time study on each individual job, to be used as a guide by the foremen and management. The results have been very pleasing, and in looking over the estimates for a reasonable period it was found that a large majority of the costs fell within the estimates made in the planning department.

The production department is also responsible for estimates covering new tools, jigs and fixtures required for the manufacture of our product, and this is carefully planned out in advance before any work is started. If O.K.'d by the management it is then turned over to the factory.

In building a lot of machines an estimate is made as to the total cost of manufacture, including the cost of new fixtures or attachments which may be required to reduce the cost of a particular lot of machines. The estimate is then turned over to the cost department, which

keeps a careful record from week to week and month to month of the work done, and compares these records with the original estimate. It is very gratifying to find that in most cases the cost of the machines is within the estimate made, and the cost of the tools fall within the amount allowed.

In removing the old equipment from the factory and substituting the new, it was necessary to scrap a great many of the old tools, jigs and fixtures and provide suitable ones of new design to be used in conjunction with the new equipment. This has resulted in a saving of from 30 to 40% in the manufacturing costs, and the investment of the additional money required for this equipment has certainly been justified by the results gained. It is practically impossible to take individual cases and show the saving in time, but as previously stated, in almost every instance where new tools have been installed the saving made has justified the expense involved. In one particular instance four machines with two operators are doing 40% more work than was previously turned out on eight machines by four operators.

One of the most important items in the operation of a factory today from a profit point of view is a careful investigation and reduction of overhead expenses. This has been accomplished in our plant by the introduction of a budget system, which is under the supervision of our accounting department. The general factory overhead expenses covering non-productive labor, supplies used in the various departments, purchases of new equipment, tools, etc., miscellaneous supplies of all kinds, etc., have been set up under the budget plan. This enables our cost accountant to predict a month in advance what the overhead will be, and also what the total expense will be for carrying on our operations. A budget has been set up covering the expense of each department and given to each foreman the first of each month. It is surprising to see the amount of interest shown by the foremen in holding down the expense of their department in order to make a record.

I cannot stress too much the desirability of taking the organization into your confidence, especially if the company is losing money or if the profits are not satisfactory. It has been my experience that many managers or head executives hesitate to talk to their foremen, superintendents, factory managers, etc., and state frankly that the company is losing money and something must be done. Personally I would

(Continued on page 19)

Foreman Training Work Progresses

A Most Important Development in Connecticut Industrial Life is Being Sponsored by the Association and is Arousing a Constantly Increasing Interest

CONNECTICUT'S success with the foremanship improvement work now being carried on by the State Department of Education, in cooperation with this Association, has attracted favorable notice from the Federal Board for Vocational Education, with the result that another member of the Federal Board staff will be loaned to Connecticut for a short period. C. F. Klinefelter, who has had several years of experience in conducting foremen training courses under the conference method and in training leaders to conduct these conferences in their own plants, will come to Connecticut during the first two weeks of October to conduct an intensive course for conference leaders in Hartford.

To Be Permanent Activity of State Education Department

THE State Department of Education was (and is) prepared to continue the work without further outside aid. For a time last fall and winter, the department had the services of another federal board man in getting the work under way, but, looking forward to the time when his services would be no longer available it groomed one of its own trade school directors, A. S. Boynton, as understudy and successor; and under Mr. Boynton's supervision, the training of leaders for foremen conferences will be a permanent feature of the activities of the department's vocational section. This temporary cooperation of the federal board, however, gives the candidates for training in the October class the benefit of some rather extended experience.

Connecticut's Progress Recognized Outside

THE loan of a second staff man from the Federal Board has a still wider significance. As a recognition by the pioneers in the movement of the unique progress Connecticut has made in this phase of industrial education, it brings out in strong relief the exceptional opportunity now available to Connecticut manufacturers of setting up in their plants, at no cost except the time of the man they select to take the course, an effective and self-perpetuating system of foremen education.

The foreman as a key man in industry — the chief agency for interpreting to the man at the bench the policies, attitude and objectives of the management — and the importance of

training this important link in the industrial scheme, is everywhere getting more attention. At the recent Machine Tool Exhibit in New Haven, one of the A. S. M. E. technical sessions was devoted to foremanship improvement, and among the papers read at this session was one by Mr. Carl F. Dietz, president of the Bridgeport Brass Company and chairman of the Industrial Relations Committee of this Association. It follows in part: —

Good Results at Bridgeport Brass and Elsewhere

"IN seeking about for a more effective manner of translating management and industrial problems into a conscious understanding by the foremen, we discovered and adopted the plan sponsored by the Federal Board for Vocational Education, which has since come to be known as 'The Connecticut Plan.' Under the direction of the State Board of Vocational Training this plan was given its introductory trial at our plants with such marked results in the way of responsiveness on the part of the men as to have caused it to spread rapidly, even during the first half of this year with every prospect of much wider application in the future.

"The department at Washington made available to Connecticut industry a most able man to introduce this work, and aside from devoting himself to the initial activities at the shops of the Bridgeport Brass Company, conducted a series of courses at the State Trade School here in Bridgeport, to which a number of industries sent representatives for training in conference leadership, these men then in turn to prosecute the conference method in their own shops. Excellent progress has been made in various parts of the State so far this year and an extensive program is prepared for the coming winter months for both the extension of the conference method in shops which have already adopted it, the introduction of this method in many other shops, and a further series of intensive training courses for leaders in various parts of the state.

Foremen Conduct Own Courses

"THE fundamental essential characteristic of the conference method — the provision of grouping men according to definite levels in any given organization, excluding supe-

riors, and being without a formulated predetermined text — not only permits but encourages the conference participants to enter into free constructive discussion of any subject the conference leader desires to have developed. In effect, the men thus under competent leadership develop their own courses and through a series of such conferences actually construct for themselves a representative intelligent picture of their own functions in industry. Most of the hitherto attempted plans either fail or attain only partial results because the men are too largely talked at with little or no opportunity for contribution or creative thought by themselves.

Aimed to Help a Man in His Present Job

HAVING not only considered but most carefully examined the many various courses offered for better foremanship, and having attempted in various ways to bring this about, our final and positive conclusion is that the conference method offers by far the most effective assurance of results. It is by this method that self-analysis as a group can be most effectively obtained, and it has for its ultimate purpose the making of better foremen rather than the purpose of most of the commercial courses which so largely devote themselves to an attempt to have a man get a better job, rather than to do the job he has better."

Mr. James W. Hook, president of the Geometric Tool Company and a member of the Association's Industrial Relations Committee, also prepared a paper for this session in which he emphasized the necessity for greater freedom of contact between officers and foremen, pointing out that foremen are actually part of the managerial forces.

"A most important part of the training of a foreman," Mr. Hook stated, "is that which will teach and encourage him to think clearly and honestly, and really manage his department and men. He must express his thoughts and opinions freely to his superiors, but be trained to loyally and conscientiously follow his superiors' orders in cases where they conflict with his own views. . . . It is my feeling that one of the principal reasons for this great movement to train foremen is to make them understand the modern thought in industry — that foremen themselves are a part and parcel of management. When they realize and understand this and get away from the old fearsome thought that management is an individual thing, outside themselves, then I claim that there will be no difficulty in getting foremen to express themselves freely to their superiors."

Department Trains Leaders, Not Foremen Directly

THE State Department of Education is not undertaking to train foremen directly but is devoting its efforts to the development of *leaders* for foremen training. These candidates for leader training are selected by the management from the plant personnel and with the grounding received through the courses given by the department in the technique of a group handling under the conference method, go back and conduct foremanship improvement conferences in their own plant. Even if circumstances permitted the department to carry on the direct work of foremen education, it is probable that the policy presently followed would be adhered to, since a leader taken from the plant is more apt to be familiar with the peculiar aims and requirements of that plant, and so better qualified to direct the foremen conferees into the best fields of discussion.

The leader need not be a foreman, but best results are not obtained from leaders who are superior officers. Cost accountants, foremen, general foremen and personnel managers are numbered among the leaders thus far trained in Connecticut.

Plans are being considered for further leader training courses after the one about to be given in Hartford. Since the location of the ones to follow will depend on demands from the various districts, interested members are urged to get in touch with the Association office.

OPEN SHOP CONFERENCE MEETS

The annual meeting of the Open Shop Conference of Connecticut will be held at the Hotel Winthrop, Meriden, on Wednesday, October 12. The business session will open at 5:30 P. M. and will be followed at 6:30 P. M. by a dinner, at which George F. Drake, chairman of the Conference, will be toastmaster. T. Yeoman Williams of the League for Industrial Rights will speak on the legal aspects of labor disputes, and Howell Cheney, of Cheney Brothers, will discuss the educational program of the conference. Addresses will also be given by Thomas J. Kelley, manager of the Hartford County Manufacturers Association on "Why Manufacturers should be interested in the building trades situation;" Minor Ives, master of the state grange, on "The attitude of agriculture towards the open shop"; and E. M. Walsh on "The labor troubles of the printing trades in New Haven." Acceptances for the meeting and dinner should be sent to W. J. Wilcox, secretary, Box 883, Meriden.

The Business Historical Society

By FRANK C. AYRES, *Secretary*

An Account of the Interesting Work of an Organization Formed Solely for the Purpose of Collecting and Preserving Business Records

Business has been called one of the oldest of the arts and the youngest of the professions. Among the latter brotherhood to which it has so recently been admitted, this newest member has been most neglected by the historian and the librarian. This is explicable by the fact that business has hitherto been regarded askance by the literati, as the mere sordid amassing of the means for carrying on other pursuits; a field for practical experiment rather than for learned study and research. With the scientific attitude that has been growing up of late in regard to business has come inevitably a new interest in its history, and in everything that may serve to aid in a careful and systematic study of its methods as they are, and as they should be.

In view of this neglect of many years, the business historian finds himself confronted with a problem much more difficult than that faced by his confreres in law, medicine and the other sciences. He has no recourse to anything approaching a complete contemporary chronicle of the activities of a given period, in literary form, and compiled with an eye to preserving them for a future generation. He must forage among the casual records incident to the routine transactions of business, and among books and tracts intended as practical aids or discussions

on current problems. Hence his task takes on the aspect of putting together a Chinese puzzle, with many of the pieces missing.

The Business Historical Society, among others, has undertaken to assemble these fragments into as complete a picture as possible of the colorful and eventful growth of industry and commerce, and has made remarkable progress since its incorporation, something more than a year and a half ago. It is an organization of business men and various others interested in business, for the preservation of books, pamphlets, manuscripts, and all the scattered information which could shed light on the origin and development of this growingly important phase of civilization. The collection already amassed by the Society is a fine and extensive one. This material ranges from such books as the *Summa de Arithmetica*, the earliest historical treatise on accounting, printed at Venice in 1494, dating from the very beginning of some particular field of activity, to the ephemeral pamphlet literature discussing the building of some proposed railroad, marking the progress of a revolution in transportation, and handed down to us by the lucky chance that led its original possessor not to burn it in a Spring house-cleaning. Two particularly interesting manuscript collections tell a day-to-

Competition + Research = ?

Edward J. Mehren, vice-president of the McGraw-Hill Publishing Company, returning recently from several months spent abroad in studying economic conditions, cautioned America that if she was to successfully cope with Germany's mass production she must also duplicate Germany's methods of intensive industrial research. He said:

"In the way of recovery, Germany's progress has been especially noteworthy. There is an enthusiasm, an intelligence and an energy among her industrial leaders that is astonishing and inspiring. Every means for reducing production costs is being intensively studied. Her handicaps will prevent her from being at once as formidable a rival in foreign trade as she was before the war, but eventually her ability to produce cheaply and well will challenge

the industrial genius of every other land. We in America can hold our place in the future competition with her only by the same means she is employing — hard work, and thorough and extensive scientific and industrial research."

Members of the Manufacturers' Association of Connecticut have at their disposal a Research Department which, working through Yale University, can help them to solve their problem regardless of what department of engineering it may fall under. Many members are making use of this service but there are many who have need of it, the Research Committee feels sure, but who have not realized that they could be helped by the Association. The Committee hopes that members who have been served will make a point of telling others.

day story of the building of the Western railroad in Massachusetts, the first to cross the state; and give us an intimate picture of the life of a New Bedford whaling captain, viewed as a consumer rather than a producer. Of more practical use than the latter, about two-thirds of the records of the Slater Woolen Mills at Webster, Massachusetts, are now in the files of the Society, in the Baker Library of the Harvard Business School, where the collection is most commodiously and conveniently housed.

These Slater records were rescued from oblivion, and very probable destruction, by one of the members of the Society. They were kept in the attic of an old building, directly over a mass of combustible material. The fate that these records escaped has been suffered by many quite as valuable. Instance could be piled on instance of priceless manuscripts going up in flames, accidentally, through having been stored in an unsafe place, or purposely, through an accession of tidiness on the part of unsympathetic relatives. Old records of no apparent value from the point of view of the owner may contain exactly the bit of information needed to complete the story of some industrial development of several generations ago. Again, a collection of material of known historic value may be a white elephant on the hands of an owner who has no suitable place to keep it. The Business Historical Society has excellent facilities for storing all such material, and makes it a part of an ever more consecutive and comprehensive history of business, accessible to students from all parts of the country. Indeed, it has growingly important foreign connections, and must eventually be an institution of international importance, treating as it does a subject of international interest.

TO-MORROW'S PROFITS ARE IN TO-DAY'S WASTES

(Continued from page 7)

Building Materials, Equipment Fittings, etc.

Face brick, smooth	36	1	97 %
Face brick, rough	39	1	97½ %
Common brick	44	1	98 %
Lumber, soft wood, yard sizes			60 %
Hollow building tile	36	19	47½ %
Builders' hardware	Items 26 %	Finishes	71 %
Sidewalk lights — sizes ...	120	6	95 %
Paint and varnish brushes .	480	138	71 %
Black board slates	251	25	90 %
Tacks and nails	428	181	58 %

Average reduction ... 72½ %

General Supplies and Furnishings for Homes, Hotels, Hospitals, Clubs, etc.

Beds, mattresses, springs ..	78	4	95 %
Bed blankets	78	12	85 %
Sterling silver, flatware ..	190	62	67 %
Tinware, galvanized and japanned	1154	873	24 %
Milk bottles	49	9	82 %
Milk bottle caps	29	1	96 %
Hotel chinaware	700	160	77 %
Restaurant chinaware	668	177	73 %
Dining car chinaware	700	113	84 %
Hospital beds	67	4	94 %
Steel lockers	65	17	74 %

Average reduction ... 76½ %

Plumbing

Structural slate for plumbing purposes	Estimated	84 %
Range boilers	130 13	90 %
Hot water storage tanks .	120 14	88 %
Brass lavatory and sink traps	1114 72	94 %

Average reduction ... 89 %

Business Documents

Warehouse receipts, stock and delivery forms, etc.	Each previously made in a thousand different forms
Invoice, inquiry and purchase order forms	There is now one standard form for each of these documents.
Bank checks, notes, deposit slips, notices, etc.

Average reduction ... "99-44/100", estimated

Savings resulting from several of the above simplifications are estimated by the leaders of the industries concerned as follows:

Field	Varieties Reduced		Estimated Annual Saving
	From	To	
Paving brick	66	4	\$1,000,000
Sheet steel	1819	261	2,400,000
Reinforcing bars	40	11	4,500,000
Warehouse forms	3500	18	5,000,000
Range boilers	130	13	5,500,000
Invoice, inquiry and purchase order forms	4500	3	15,000,000
Lumber-yard sizes	100 %	40 %	250,000,000
Total			\$283,400,000

It takes over three thousand nuts to hold a Ford together, but it takes only one to scatter it all over the highway.

Resignation of R. T. Jones

IT was with deep regret that the Board of Directors of the Association at its last meeting, accepted the resignation of Mr. Robert T. Jones, director from Tolland County. Mr. Jones, who was formerly with the firm of Gardiner-Hall Jr., Inc., of South Willington, has retired from that firm and will reside in another part of the state. His successor will be appointed by the Board at a later meeting following recommendations of the Executive Committee.



ROBERT T. JONES

Motor Vehicle Laws

THROUGH the courtesy of the Commissioner of Motor Vehicles, the Association was supplied with a sufficient number of copies of the pamphlet containing the complete Connecticut motor vehicle laws, to send one to each member of the Association. The booklet is revised to July 1, 1927, to contain all changes made by the last General Assembly and also includes information in regard to fees.

The French Tariff Situation

THE action of the French government in imposing tariff rates highly discriminatory against the United States, was not as hasty an action as the general public seems to feel. It may be construed, therefore, that to have permitted the present outcome without previous protest, whereas ample warning of the proposed action had been given, was an act for which our own government must bear a share of the responsibility. It is an added instance to accumulated disturbances which makes it inevitable that the tariff question as a whole be foremost in the public eye this year.

The contents of the French note which suggested reciprocal tariff treatment has not been made public in its entirety by the State Department, but the French Government will probably be asked if it is agreeable to having it made public, together with the reply from the State Department which went forward on September 21.

The sentiment that prevails in Washington seems to indicate that when a reasonable time has elapsed after the dispatch of our governments reply, Section 317 of the Tariff Act of 1922 will be employed by the President by which imports from France into the United States can be assessed duties 50% higher than those from other countries, or, if necessary, a complete embargo effected.

This would put the United States in a position to bargain with France for a new commercial treaty which, experts agree, has been badly needed for a number of years, conditions having changed very materially since the basic rates of duty were applied by our government in 1910 and at which time France agreed to a minimum rate on many articles.

There seems little reason to believe at the present time that the situation will not be satisfactorily adjusted without a trade war, but that does not do away with the fact that, under the best outcome, American interests have already met with heavy losses. It is to be hoped that the matter will be handled expeditiously and firmly.

Members from Connecticut on Platform for Industry

FOUR Connecticut manufacturers have been honored by the National Association of Manufacturers in being appointed to membership on the Platform for Industry Committee of that body, made up of 100 members from all parts of the country. The Connecticut members chosen are: Willis F. Hobbs, president, Bridgeport Hardware Company; F. S. Chase, president, Chase Companies, Inc.; Clarence Whitney, president, Whitney Manufacturing Company and Charles Cheney, president, Cheney Brothers.

At a meeting of the committee held in New York September 14, fourteen planks were adopted for incorporation in the national program to be submitted to both parties next year and fourteen sub-committees working under a general drafting committee will prepare the case on each plank and report at the annual meeting of the National Association of Manufacturers to be held in Chattanooga, Tennessee, October 25, 26 and 27.

The Manufacturers Association of Connecticut has submitted, through its Executive Committee and Board of Directors, its recommendations for inclusion in the planks.

CHANGING RED FIGURES INTO BLACK

(Continued from page 13)

not know how to change a loss into a profit without getting all of the foremen and executives of the organization together and putting the problem up to them, asking them for their cooperation and assistance. If they know of the problems which the managers are laboring under and the difficulties encountered, whether it be manufacturing, sales, or finances, they can be of great assistance in overcoming them. We consider this a very good policy and it has worked out very satisfactorily. All the cards are laid on the table and our men shown a true picture of the situation. Then every one pulls together in order to remedy the conditions and accomplish the desired results.

More Pep

THERE is no question that more pep than ever before is required in business today in order to meet competition and existing conditions. We are living in an age of Speed, and in looking over new machine tool equipment and tools of all kinds which have been recently designed and developed we find them to be much heavier, simpler to operate, capable of much greater production, with longer life, all of which is in line with the trend of the times.

More effort is required from the sales organization to sell machine tools today, and the old-time salesman who was merely an order taker has been eliminated. Today we find it very essential that our salesmen be real engineers, capable of going into a factory and giving information as to the maximum production obtainable by the use of certain machines, the proper methods of producing work, recommending the correct tools and types of machines to meet his customers' requirements, etc.

Advertising also enters into the sales program as an important factor, and looking over any of the trade journals it is obvious that up-to-date concerns find it necessary to conduct strenuous advertising campaigns in order to bring their product before the attention of the public.

New Members

SINCE the last announcement in *Connecticut Industry* the following firms have been admitted to membership: Maderite Paper Box Company, Winsted and the Lux Clock Manufacturing Company, Waterbury.

New Publications of Industrial Interest

There are a number to talk about but don't be bothered with any of them until you have read "Your Moneys' Worth." It will do you more good than a dozen technical books on how to run your business.

Government Publications

The Department of Commerce has recently issued bulletins which may be obtained upon request of the Association, without charge:

The British Market for Hand Tools

The Paraguayan Market — (Paraguay's foreign trade in 1925 was over \$26,000,000)

Used Car Markets of Foreign Countries

Travel Routes and Costs in Caribbean Countries

Parana Pine Lumber Industry of Brazil

Government Publications Relating to Textiles (A catalogue of all such Government publications)

Textile Section of the Record Book of Business Statistics (Statistics from 1909 through 1926 of various phases of the cotton, wool, silk, rayon and other textile industries)

Wages and Hours of Labor in Cotton Goods Manufacturing for Years 1910-1926.

Other Books

Vacations for Industrial Workers, by Charles M. Mills, Ronald Press — The first of a series of research books sponsored by the Industrial Relations Counselors, Inc.

The Economic Basis of Fair Wages, by Jacob D. Cox, Jr., Ronald Press — Includes such chapter headings as *Wages and Living Costs*; *The Laws of Prices*; *The Law of Real Wages or the Standard of Living*; *What are Fair Wages?*; *Improving the Standard of Living*; *The Laws of Money Wages*.

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Just Among Ourselves

 *As we row hard against the stream of life, is it only blindness in our eyes which have been too long strained, which makes us see, far up the river where it fades into distance, through all the mists that rise from the river-banks, a clear, golden light? Is it only a delusion of the eyes which makes us grasp our oars more lightly and bend our backs lower; though we know well that long before the boat reaches those stretches, other hands than ours will man the oars and guide its helm?"*

In every age and among all peoples there have been and always will be, those brave few who, because of a high spirit of service, go pioneering for the benefit of mankind. Call it adventure, call it science, call it progress, call it what you will, it is prompted by that divine spark that from time immemorial has lifted the world from the dull and deadly level of unprogressiveness into the fine heights of achievement.

Such a one was Pilot Daniel Cline of the Colonial Air Transport who died for his country as truly as did any soldier. To him was given the task of transporting New England's first air-express. An experienced pilot, he had flown his great tri-motored plane many times over the same route. Conditions were unfavorable, with a dense fog preventing visibility, but

the mail and express must get through and he placed duty ahead of his life. His grave is a milestone in the history of New England progress but after him come countless others who stand ready to take up the task he laid down. In their quiet unpretentious way they will go on and on and on. Let us watch ourselves that we for whose prosperity they are doing this, do not fail them and that their task shall not have been in vain.

Out of the intellectual haze of the Institute of Politics there emerges at least one clear recollection—a story that hailed from Honolulu. (It is to be hoped that all who read have at some time encountered the Australian accent which always puts in an "i" in place of an "a".) A group of people arrived late at the Institute, having just returned from the Institute of Pacific Relations and one of them told this story.

"We were gathered," he said, "at one of the sessions when someone asked what was the difference between a buffalo and a bison. It was a puzzler, but the American delegates agreed that their reputation depended upon finding an answer and they went into solemn conclave. Somewhat later they emerged, flushed but victorious.

"'A buffalo,' they announced to the expectant audience, 'is a great American

animal and a bison is what the 'Australians' wash their hands in!'"

The source of this quotation, used in an address a short time ago, is unfortunately not known: "In essentials unity; in non-essentials liberty; in all things charity." What a wonderful sentiment that would be if we would only apply it in our business and in our everyday lives.

The public utilities call our attention to the fact that, in 1925, barbering and cosmetics cost American women \$500,000,000 and American men \$750,000,000 and that this is 25% more than the entire bill of the nation for lighting all its homes, offices and stores in the same period, and also, we learn, more than the cost of maintaining our navy. Our own observations would lead us to believe that 1926 and 1927 will show a sharp upward curve and presumably suggestions are in order.

The *New Yorker* refuses to be worried about this most appalling situation. "Why not?" it asks, "What good is a navy anyway if it has no beautiful women to defend?"

Personally we are inclined to believe, and again from observation only, that \$500,000,000 is not entirely equal to the task.

M. A. C.'s Views on Current News

Newspaper headline — "Clemenceau Eats Cold Ham and Pickles." He must have a delicatessen housekeeper.

* * *

Newspaper headline — "Mrs. James Whitaker Knocked Down by Baby Carriage." What will that kid do when he gets an automobile?

* * *

No, Gertrude, the six thousand carloads of grapes that California shipped last week are not to be made into jelly.

* * *

Governor Trumbull wants us to become air-minded. Most of us are light-headed enough.

* * *

Senator Walsh says that prohibition is not an issue. Even old Volsted apparently does not recognize the child.

* * *

Chemical experts have developed a skinless sausage. We may stand for scantily dressed women but we must insist that our sausages be dressed.

* * *

Magazine article heading — "H. L. Mencken Explains Himself." We have been trying to do just that for four years.

* * *

The Association protested against the removal of the alcohol permit section from Hartford. Sounds funny.

* * *

We know these aren't funny, but we will send a new \$1 bill to anyone sending in one that is funny — and that we can print. This is serious.

Please write us if you would like a list of all insurance companies authorized to do business in Connecticut. We have it in pamphlet form and will be glad to send any member a copy.

INDUSTRIAL NEWS (Continued from page 10)

Manufacturing Company, the violator of the patent being the Patent Manufacturing Company of New York. The decision is of wide importance to manufacturers and users of straight line frequency condensers.

WILL HEAD STEEL TREATERS

A large number of delegates from Connecticut attended the 9th annual convention of the American Society for Steel Treating held in Detroit last month. Connecticut is represented in the national officers of the association by Fred G. Hughes of the New Departure Manufacturing Company, Bristol, who is vice-president and who was nominated for national president at the Detroit meeting.

JOHN P. SMITH COMPANY ENLARGES

The John P. Smith Company of New Haven, manufacturers of wire goods, has purchased the M. Armstrong factory property and will shortly transfer its manufacturing operations to the new space. Sales rooms and offices will be retained at their present location on State Street. The Armstrong plant will give the Smith Company 25,000 square feet of additional floor space.

UNION PIN COMPANY ENLARGES

A new factory building, 60 x 60 feet is being added to the Union Pin Company property at Winsted.

NEW CONCERN IN MERIDEN

At a special meeting of shareholders of the Connecticut Telephone and Electric Company of Meriden, the action of the directors was ratified, in accepting an offer for Plant 2 from the Monowatt Electric Import Company, Inc. of New York which is controlled by the Miller Company of Meriden.

Plant 2 was originally owned and operated by the Wilcox & White Company, makers of player-pianos and was later taken over by the Connecticut Telephone & Electric Company as an addition to their main plant. The sale includes the manufacturing rights for cetec, a cold mold insulation.

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Transportation

NEW ENGLAND DEMURRAGE COMMISSION

Rumor has it that the New England carriers are contemplating the discontinuance of the New England Demurrage Commission. There is little doubt that such action would be strenuously opposed by New England shippers.

COAL RATES

Examiners Koch and Harris of the Interstate Commerce Commission have presented their supplementary report on Docket I. C. C. 15006 which concerns rates, charges, regulations and practices governing transportation of coal. Members will recall that the Association is a party to this case which has been before the Commission for approximately three years. The report recommends in substance that rates on semi-bituminous coal from southern mines to New England points be granted at a rate increase of \$1.25 over the Clearfield rate, instead of the present \$1.10 over Clearfield which exists via certain lines; that the rate on coal from the Clearfield District to lower New York ports be reduced 12¢ and 22¢ to upper New York ports. The Association, through its Transportation Counsel, Transportation and Coal Committees, is making a detailed study of the report. Exceptions, if any, must be filed with the Commission and copies served so as to reach opposing counsel on or before October 10.

UNIVERSAL CARLOADING AND DISTRIBUTING COMPANY

The Universal Carloading and Distributing Company has established stations at Bridgeport, New Haven, Waterbury and Hartford. The service as operated by this company consists of the handling of less than carload shipments of commodities provided for in tariffs which it publishes, to and from points named in such tariffs, at rates quoted therein. In accordance with the rules published in Consolidated Freight Classification currently in effect, particularly rules 10, 14, 24 and 34, less than carload shipments as described above are loaded by this company in mixed solid car loads and are forwarded on definite schedules.

The Universal Carloading and Distributing Company has submitted to the Association the answers to a list of questions presented. These answers are available to members and give in more or less detail the character and type of the service rendered.

SOUTHWESTERN RATES DECISION

The decision of the Interstate Commerce Commission on the Southwestern Rates Case, No. 123, I. C. C. No. 203 — No. 14880, is of immense importance to members. Complete information was contained in Traffic Bulletin No. 279 and a surprisingly small number of members evidenced interest. The Traffic Committee cannot go forward with an intelligent conduct of the case unless members show the necessary interest. The case will be dropped unless contrary advice is received.

SOUTHERN CLASSIFICATION DOCKET

In Traffic Bulletin No. 282 members were advised of the proposed changes in the Southern Classification Docket. A large number of interested Connecticut concerns have advised the Association as to the effect of the proposed changes on their particular industry. Anyone shipping into this territory should communicate with the headquarters office at once.

MOVEMENT OF LIGHTERAGE FREIGHT

The movement of lighterage freight is excessively costly to the New York, New Haven and Hartford Railroad. Officials of the railroad are at the present time conferring with members of the Traffic Committee with a view to working out an arrangement whereby the majority of shipments destined for lighterage freight can be shipped via steamship lines. The Traffic Committee expects to issue an announcement in regard to this case in the near future.

OFF LINE TRANSFER SERVICE

At the last meeting of the Traffic Committee which was held on September 16 officials of the New York, New Haven & Hartford Railroad presented a report on off line transfer service efficiency. The report indicated that such service was, during the past month, over ninety-five per cent efficient. Operating officials of the railroad are to be congratulated upon the effort which they are now making to maintain this service at the highest standard.

AIR EXPRESS

The American Railway Express Company has issued Air Express Tariff No. 1 applying on traffic carried by airplane from New England points to New York City, to Chicago, Dallas, Salt Lake City, Los Angeles, San Francisco and intermediate landing points. The tariff was effective September 1.

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DEPENDABILITY

Sales Exchange

In this department members may list without charge any new or used equipment or supplies. All copy must be in the hands of the editor by the fifteenth day of the month preceding publication.

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35,000 lbs. cold rolled steel in coils 3" x .025".

Address S. E. 170.

Stock bins

300 wooden stock bins, 4' square with sliding doors. Could use carload of shooks which might be made part of trade.

Address S. E. 171.

One gas carbonizing furnace

Double cylinders 8" x 47" inside measurements, revolving type.

One coloring furnace

One #2 pressure blower

All made by the American Gas Furnace Company

Address S. E. 172.

FACTORY SPACE

20. FOR SALE. In Willimantic, plant equipped with machinery to manufacture grey cotton goods, 10,000 spindles and 198 40" looms. Also, 20 acres of land on both sides of river, complete power rights, capable of developing 200 H. P., now developed to 160 H. P. Run and lighted by water, equipped with steam for emergency use. Warehouse on Central Vermont siding, 16 cottages with 32 tenements, boarding house, superintendent's house, stable and garages.

18. FOR RENT. In Meriden, about 50,000 sq. ft. in any one of several buildings, all of heavy mill construction. Owner is now using part of plant but would rearrange to suit tenant. Diagram of layout will be sent upon request.

19. FOR SALE. In Middletown, frame factory buildings, 2½ stories 13,000 sq. ft. Wired for light and power and equipped with boiler for heating and process steam. Heavy floors suitable for drop press work. Delivery platform. Land 200' deep by 100' wide. Blueprint may be seen upon request of this office.

Employment Service

This department is open to members free of charge. All copy must be in the hands of the editor by the fifteenth day of the month preceding publication.

COST ESTIMATOR—Age 26. Technical training. Experience in pressed metal cost work. Adept with figures and familiar with detail manufacturing operations. Address P. W. 279.

TRAFFIC MAN—Age 27. Married. Education covers courses in traffic management. Nine years experience in railroad accounting and freight claims. Address P. W. 280.

GENERAL ACCOUNTANT—Age 45 years. College education. Fourteen years of a very broad general accounting experience. Associated for 12 years with a large and reputable concern of consulting accountants as senior accountant. Experience covers a wide range of enterprises, including public utilities, banks, trust companies and industrial establishments. Still engaged in this practice but desires to connect with some progressive company as general accountant. Address P. W. 281.

INDUSTRIAL EXECUTIVE—Age 41. Married. College education. Twenty years industrial experience, part of time with prominent firm of industrial engineers. Eight years assistant works manager and industrial engineer of a large plant, involving plant layout, production control, time studies, rate setting, converting manual to mechanical operations, analytical studies of processes and materials and in general

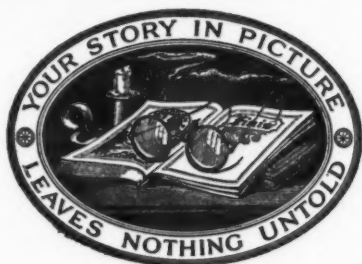
charge of labor. Organized personnel and service departments. Address P. W. 282.

FOUNDRY SUPERINTENDENT—Man with 28 years practical experience in foundry work wishes position as foreman or superintendent. Address P. W. 283.

ANALYST-PERSONNEL MANAGER—American. Thoroughly trained in analysis, accumulation and correlation of data. Experienced in problems of labor. Address P. W. 284.

WORKS ENGINEER—Age 41. American. College graduate, mechanical engineering, also taken courses in electrical engineering and business management. Experience covers production clerk and assistant works engineer, which included supervision of production and distribution of power, building construction, plumbing, installation of machinery and factory layout. Has also been planning engineer, works manager and mechanical superintendent, having charge of maintenance, design and building and installation of factory equipment. Address P. W. 285.

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